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**REISSUE APPLICATION DECLARATION BY THE INVENTOR**

Docket Number (optional)  
081513-328

As a below named inventors, We hereby declare that:

Our residence, mailing address and citizenship are stated below next to our names.

We believe we are the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventors (if plural names are listed below) of the subject matter which is described and claimed in patent number 6,252,909, granted June 26, 2001 and for which a reissue patent is sought on the invention entitled MULTI-CARRIER TRANSMISSION SYSTEM UTILIZING CHANNELS OF DIFFERENT BANDWIDTH, the Specification and Preliminary Amendment therefore which

- ☐ are attached hereto.  
☒ were filed on June 26, 2003 as Reissue Application Number 10/603,833  
and amended concurrently herewith in a Second Preliminary Amendment.  
(If applicable)

We have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

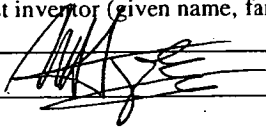
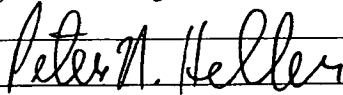
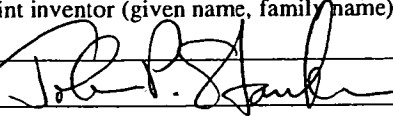
We verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below.  
(Check all boxes that apply.)

- ☐ by reason of a defective specification or drawing.  
☒ by reason of the patentee claiming more or less than he had the right to claim in the patent.  
☐ by reason of other errors.

At least one error upon which reissue is based is described below. If the reissue is a broadening reissue, such must be stated with an explanation as to the nature of the broadening:

Claims have been added to more broadly claim the tree-structured filter bank as taught in the specification as originally filed.

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(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)		Docket Number (optional) 081513-328	
All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.			
Name(s)	Registration Number		
Jason H. Vick	45,285		
I/We hereby appoint:			
Practitioners at Customer Number <b>00181</b> as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.			
Correspondence Address: Direct all communications about the application to:			
<input checked="" type="checkbox"/> Customer Number	<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">00181</div> <div style="display: inline-block; vertical-align: middle; margin-left: 5px;">→</div>	Place Customer Number Bar Code Label here	
<i>Type Customer Number here</i>			
<input type="checkbox"/> Firm or Individual Name			
Address			
Address			
City	State	Zip	
Country			
Telephone	Fax		
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.			
Full name of sole or first inventor (given name, family name) Michael A. TZANNES			
Inventor's signature			Date <i>Nov 7, 2003</i>
Residence	Citizenship: USA		
Mailing Address 17 Carley Road, Lexington, MA 02173, United States of America			
Full name of second joint inventor (given name, family name) Peter N. HELLER			
Inventor's signature			Date <i>Nov 7, 2003</i>
Residence	Citizenship USA		
Mailing Address <i>30 Wallace Street, Somerville, MA 02144</i>			
Full name of third joint inventor (given name, family name) John P. STAUTNER			
Inventor's signature			Date <i>November 16, 2003</i>
Residence <i>24 PASTORAL POND CIR, THE WOODLANDS, TX 77380</i>	Citizenship USA		
Mailing Address SAME			
Full name of sole or first inventor (given name, family name) William R. MORRELL			

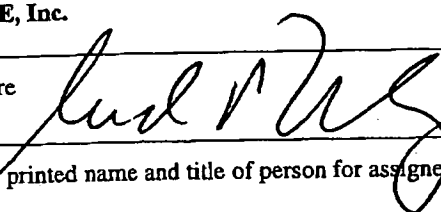
Inventor's signature	Date
Residence	Citizenship
Mailing Address	
Full name of sole or first inventor (given name, family name)	
Sriram JAYASIMHA	
Inventor's signature	Date
Residence	Citizenship
Mailing Address	

PTO/SB/53 (02-01)

Approved for use through 01/31/2004. OMB 0651-0033

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>REISSUE APPLICATION: CONSENT OF ASSIGNEE; STATEMENT OF NON-ASSIGNMENT</b>		Docket Number (Optional) 081513-328
This is part of the application for a reissue patent based on the original patent identified below.		
Name of Patentee(s) <u>Michael A. TZANNES, Peter N. HELLER, John P. STAUTNER, William R. MORRELL, Sriram JAYASIMHA.</u>		
Patent Number 6,252,909	Date Patent Issued June 26, 2001	
Title of Invention: <u>MULTI-CARRIER TRANSMISSION SYSTEM UTILIZING CHANNELS OF DIFFERENT BANDWIDTH</u>		
<p>1. <input checked="" type="checkbox"/> Filed herein is a statement under 37 CFR 3.73(b). (Form PTO/SB/96)</p> <p>2. <input type="checkbox"/> Ownership of the patent is in the inventor(s), and no assignment of the patent is in effect.</p> <p>One of boxes 1 or 2 above must be checked. If multiple assignees, complete this form for each assignee. If box 2 is checked, skip the next entry and go directly to "Name of Assignee".</p> <p>The written consent of all assignees and inventors owning an undivided interest in the original patent is included in this application for reissue.</p>		
The assignee(s) owning an undivided interest in said original patent is/are <u>AWARE, Inc.</u> and the assignee(s) consents to the accompanying application for reissue.		
Name of assignee/inventor (if not assigned) <u>AWARE, Inc.</u>		
Signature 	Date June 26, 2003	
Type or printed name and title of person for assignee (if assigned) <u>Richard P. Moberg, CFO, Aware Inc.</u>		

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

PTO/SB/96 (08-00)

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Michael A. TZANNES, Peter N. HELLER, John P. STAUTNER, William R. MORRELL, Sriram JAYASIMHAApplication No./Patent No.: U.S. Patent 6,252,909 Filed/Issue Date: June 26, 2001Entitled: MULTI-CARRIER TRANSMISSION SYSTEM UTILIZING CHANNELS OF DIFFERENT BANDWIDTHAware, Inc  
(Name of Assignee)a corporation  
(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 10913, 11011, Frame 0057, 0755, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

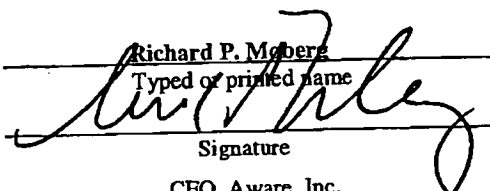
☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☐ Copies of assignments or other documents in the chain of title are attached.

**[NOTE:** A separate copy (i.e., the original assignment document or true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

June 26, 2003  
Date

Richard P. Moberg  
Typed or printed name  
  
Signature  
CFO, Aware, Inc.  
Title

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

**REISSUE APPLICATION DECLARATION BY THE INVENTOR**

Docket Number (optional)

T3653-8793US05

As a below named inventors, We hereby declare that:

Our residence, mailing address and citizenship are stated below next to our names.

We believe we are the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventors (if plural names are listed below) of the subject matter which is described and claimed in patent number 6,252,909, granted June 26, 2001 and for which a reissue patent is sought on the invention entitled MULTI-CARRIER TRANSMISSION SYSTEM UTILIZING CHANNELS OF DIFFERENT BANDWIDTH, the Specification and Preliminary Amendment therefore which

- ☐ are attached hereto.
- ☒ were filed on June 26, 2003 as Reissue Application Number 10/603,833 and amended 9 December 2003

(If applicable)

We have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

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Claims have been added to more broadly claim the tree-structured filter bank as taught in the specification as originally filed.

**(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)**Docket Number (optional)  
T3653-8793US05

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Name(s)

Registration Number

Jason H. Vick

45,285

I/We hereby appoint:

Practitioners at Customer Number 00181 as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Correspondence Address: Direct all communications about the application to:

☒ Customer Number

00181

Type Customer Number here

Place Customer Number Bar  
Code Label here☐ Firm or  
Individual Name

Address

Address

City

State

Zip

Country

Telephone

Fax

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Full name of sole or first inventor (given name, family name)

Michael A. TZANNES

Inventor's signature

Date

Residence Lexington, MA, USA

Citizenship: United States of America

Mailing Address: 17 Carley Road, Lexington, MA 02173

Full name of second joint inventor (given name, family name)

Peter N. HELLER

Inventor's signature

Date

Residence: Sumerville, MA, USA

Citizenship: United States of America

Mailing Address: 30 Wallace Street, Sumerville, MA 02144

Full name of third joint inventor (given name, family name)

John P. STAUTNER

Inventor's signature

Date

Residence: The Woodlands, TX, USA

Citizenship: United States of America

Mailing Address: 24 Pastoral Pond Cir., The Woodlands, TX 77380

Full name of sole or first inventor (given name, family name)

William R. MORRELL

Inventor's signature

Date

Residence: Seattle, WA, USA

Citizenship: United States of America

Mailing Address: 401 E. Mercer, St. #8, Seattle, WA 98102

Full name of sole or first inventor (given name, family name)

Sriram JAYASIMHA

Inventor's signature

Date

Residence: Waltham, MA, USA

Citizenship: India

Mailing Address: 2602 Stearns Hill Road, Apt. # 1020, Waltham, MA 02451

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PTO/SB/51 (02-01)

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U.S. Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Name(s) Jason H. Vick	Registration Number 45,285		
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Correspondence Address: Direct all communications about the application to:			
<input checked="" type="checkbox"/> Customer Number	<div style="border: 1px solid black; padding: 2px; display: inline-block;">00181</div> <i>Type Customer Number here</i>	→	<i>Place Customer Number Bar Code Label here</i>
<input type="checkbox"/> Firm or Individual Name			
Address			
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Full name of sole or first inventor (given name, family name) <b>Michael A. TZANNES</b>			
Inventor's signature	Date <i>16 April, 2004</i>		
Residence Lexington, MA, USA	Citizenship: United States of America		
Mailing Address: 17 Carley Road, Lexington, MA 02173			
Full name of second joint inventor (given name, family name) <b>Peter N. HELLER</b>			
Inventor's signature	Date <i>20 April 2004</i>		
Residence: Somerville, MA, USA	Citizenship: United States of America		
Mailing Address: 30 Wallace Street, Somerville, MA 02144			
Full name of third joint inventor (given name, family name) <b>John P. STAUTNER</b>			
Inventor's signature	Date		
Residence: The Woodlands, TX, USA	Citizenship: United States of America		
Mailing Address: 24 Pastoral Pond Cir., The Woodlands, TX 77380			
Full name of sole or first inventor (given name, family name) <b>William R. MORRELL</b>			
Inventor's signature	Date		
Residence: Seattle, WA, USA	Citizenship: United States of America		
Mailing Address: 401 E. Mercer, St. #8, Seattle, WA 98102			

Full name of sole or first inventor (given name, family name) <b>Sriram JAYASIMHA</b>	
Inventor's signature	Date
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Mailing Address: 2602 Stearns Hill Road, Apt. # 1020, Waltham, MA 02451	